INTRODUCTION

Problems discussed in this Volume were presented during the 3rd International Scientific Conference on Spatial Econometrics and Regional Economic Analysis (SEREA 2014) organised by the Department of Spatial Econometrics at the University of Lodz, Poland (June 9-10, 2014).

Main topics of the 12 published papers are: testing of spatial dependencies and application of selected methods or spatial models in regional analyses.

Beata Bal-Domańska focused on identifying spatial dependence in employment indicators for social and economic cohesion in the European Union. The analyses provided an answer to questions about regional clustering of employment, characterised by labour market development levels.

The income changes in agricultural regions were discussed by Stanisław Jaworski and Robert Pietrzykowski. Authors have investigated the time-varying impact on income using a functional concurrent regression model, which allowed to determine the differences in farm incomes in the years 2004–2012. Results of the study confirmed that a large part of income in the Polish agriculture origins from payments and failed to establish the influence of subsidies.

Jens Kolbe and Henry Wüstemann used hedonic pricing analysis in estimating the value of urban green space in Cologne, Germany. The results pointed on: capitalization of UGS in property prices and higher effect of structural variables. The study demonstrated positive price impact of parks, forests and water, as well as the inverse relationship between prices variable and the presence of fallow and agricultural lands.

Edyta Łaszkiewicz aimed to test, in terms of the effects of incorrect specifications spatial effects, the spatial and hierarchical models, intended for analysis of spatial processes that were characterised by spatial heterogeneity and autoregression. Using the Monte Carlo simulation for the m-SAR and HSAR models, the study confirmed that misdiagnosis of spatial homogeneity or heterogeneity of the process adversely affect, the estimates of the spatial interaction parameter at the individual level.

On establishing the changes in regional innovation levels for EU countries focused Małgorzata Markowska. The estimated linear and exponential trends, along with the slopes significance testing indicated countries with declining

observed regional differences in innovation level, regions with a stable diversity and economies in which these regional differences have deepened.

Regional innovativeness and socio-economic development were also investigated by Edyta Żmurkow-Poteralska. The main interest of the Author concentrated on issues related to regional innovation level synthetic measurement, based on selected taxonomic methods.

Georgi Penchev explored the economical and spatial dependency of crimes rates in Europe at NUTS-3 level. The research allowed identifying the clusters, indicating the existence of stable groups of regions with similar values of crime rates. On the basis of the results, it was also possible to classify, visualise and analyse the similarities and differences among the smallest statistical regions of the EU.

The determinants of regional growth in Ukraine were investigated by Victor Shevchuk. On the basis of panel data, the Author estimated the regional factors of regional growth in real terms. To achieve the aim of article, in the analyses fixed effects and Arellano-Bond estimators were used.

Tomasz Szubert tried to recognise the spatio-temporal diversity of life values of Poles. The analyses indicated that the values of life are spatially and temporally varied and the health is the most important value for Poles. The research also confirmed that recently more important have become intangibles values like: children, friends, God, and material values such as: money or labour lost its importance.

With poverty spatial diversity faced in the article Paweł Ulman and Agnieszka Wałęga. The aims of the study were the level and diversity of poverty in the provincial a cross-sectional systems. Assuming different levels of the poverty line, Authors also identified factors affecting the risk of poverty.

Krzysztof Wach and Liwiusz Wojciechowski aimed to clarify which factors in the case of the Visegrad Group countries were important motives for making foreign direct investment in the EU-27. In order to verify hypotheses the estimation of panel models was made and the results suggested that the gravity modelling is adequate technique to explain the outflow of FDI from the group of V4 countries.

On properties of spatial quantiles focused Grażyna Trzpiot, emphasising the importance and variety of applications of conditional quantiles for economic, biomedical and industrial problems. Article aimed to characterise and present different concepts of multivariate quantiles and discuss the sample version of spatial quantile function.